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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/691,909	10/20/2000	Yasuyuki Ikeguchi	P107314-00013	7608

7590 01/26/2004

ARENT FOX KINTNER PLOTKIN & KAHN, PLLC  
Suite 600  
1050 Connecticut Avenue, N.W.  
Washington, DC 20036-5339

EXAMINER
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YENKE, BRIAN P

ART UNIT	PAPER NUMBER
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2614

DATE MAILED: 01/26/2004

11

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/691,909

Applicant(s)

IKEGUCHI, YASUYUKI

Examiner

BRIAN P. YENKE

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on RCE (17 Dec 03) & Amendment (17 Oct 03).
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 17 October 2003 has been entered.

2. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3a. Claims 1,4-5, 8-9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moon, US 6,501,510 in view of Shigihara et al., US 5,966,186.

In considering claim 1,

- a) the claimed providing a receiving section...* is met by tuner 102, which receives analog and digital signals simultaneously (col 3, line 54-56).
- b) the claimed judging, when a digital television broadcasting program is selected, whether or not an analog...* is met by controller 120 and determines whether or not a digital broadcast signal is received (col 3, line 45-53) (Fig 1).
- c) the claimed receiving and outputting...digital television broadcasting* is met where control unit 120 gives priority to the digital broadcast signal, when both the analog and digital broadcast signals are both received (col e, line 54-61), and when the digital broadcast signal is not detected the analog broadcast signal is selected (col 3, line 62-65).

However, Moon does not explicitly recite receiving the analog television broadcast signal when the digital television broadcast signal degrades such that an error rate corresponding to the digital television broadcasting exceeds a reference value (limitation c).

Moon does disclose a system which receives both analog and digital television broadcast signals where priority can be given to the digital signal when both (analog and digital) are received, and also the user may manually switch between the received analog and digital channels. Moon also discloses that in the event that the digital broadcast signal is not detected, a control signal will automatically select the analog broadcast signal (col 3, line 54-67).

Although, errors associated with a received digital broadcast signal are conventional in the art (also shown in applicant's admitted prior art Fig 4, ECC 107), the

examiner incorporates Shigihara et al., US 5,966,186 which discloses a digital broadcast receiving device which determines/illustrates whether a received digital broadcast signal error rate exceeds a value where the normal error correction cannot perform thus providing an extremely deteriorated quality in video and audio (col 8, lines 57-67 to col 9, lines 1-3, Fig 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Moon which receiving both analog and digital broadcast signals, which preferentially gives priority to the digital signal, with Shigihara, in order to monitor the received digital broadcast signal and in the event the received digital signal exceeds a prescribed error rate/threshold (i.e. degraded picture), to then switch to the received analog signal, since the digital broadcast signal has been detected/determined to be extremely deteriorated, thus providing the user a viewable, quality picture for display.

In considering claims 4, 8 and 12,

Moon discloses a digital/analog broadcast signal processing unit which receives a same channel signal both in analog and digital form, where tuner 102 selectively transmits the digital signal if received to digital processor 10000 via digital demodulator 103 and the analog received signal to analog demodulator 112. Thus tuner 102 based on the received waveform(s) determines the demodulation performed via demodulator 112 or 103.

In considering claims 5 and 9,

*a) the claimed a receiving section for digital television broadcasting* is met by tuner 102, which processes a digital signal via digital signal broadcasting processing block 1000 (Fig 1).

*b) the claimed a receiving section for analog television broadcasting* is met by tuner 102 via analog broadcast signal demodulator 112 (Fig 1).

*c) the claimed switching means...* is met by controller 120 which switches between analog and video signals via video switching unit 113 (Fig 1).

*d) the claimed means for causing...* is met where when a user selects a channel via key input unit 121, the tuner will receive the analog channel which is processed via tuner 102 and demodulator 112, in addition if a digital signal is also broadcasted for the same channel which is received via tuner 102 and digital processing 1000, the digital signal is selected via controller 120 and video switching unit 113.

*e) the claimed means for causing...digital television broadcasting program* is met where the control unit 120, can be designed to give priority to the digital broadcast signal when both the digital and analog signals are received, and also the switching control signal can be generated by a user to manually select either the analog or digital signal received.

*f) the claimed means for controlling...* is met by controller 120, via video switching unit 113, which controls whether the analog or video signals are selected.

However, Moon does not explicitly recite receiving the analog television broadcast signal when the digital television broadcast signal degrades such that an

error rate corresponding to the digital television broadcasting exceeds a reference value (limitation e).

Moon does disclose a system which receives both analog and digital television broadcast signals where priority can be given to the digital signal when both (analog and digital) are received, and also the user may manually switch between the received analog and digital channels. Moon also discloses that in the event that the digital broadcast signal is not detected, a control signal will automatically select the analog broadcast signal (col 3, line 54-67).

Although, errors associated with a received digital broadcast signal are conventional in the art (also shown in applicant's admitted prior art Fig 4, ECC 107), the examiner incorporates Shigihara et al., US 5,966,186 which discloses a digital broadcast receiving device which determines/illustrates whether a received digital broadcast signal error rate exceeds a value where the normal error correction cannot perform thus providing an extremely deteriorated quality in video and audio (col 8, lines 57-67 to col 9, lines 1-3, Fig 4).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Moon which receiving both analog and digital broadcast signals, which preferentially gives priority to the digital signal, with Shigihara, in order to monitor the received digital broadcast signal and in the event the received digital signal exceeds a prescribed error rate/threshold (i.e. degraded picture), to then switch to the received analog signal, since the digital broadcast signal has been detected/determined

to be extremely deteriorated, thus providing the user a viewable, quality picture for display.

3b. Claims 2, 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moon, US 6,501,510 in view of Shigihara et al., US 5,966,186 and Eyer, US 6,483,547.

In considering claims 2, 6 and 10,

The combination of Moon and Shigihara discloses an analog/digital broadcast signal processing unit that receives/displays the digital signal when both an analog and digital signal are simultaneously received, and also provides the user the ability to switch between the received analog or digital signals, where the digital signal is monitored to determine if it's error rate exceeds a reception quality limit.

However, neither Moon nor Shigihara disclose the basis of an analog broadcast judgment being made, being based on additional information sent as part of the broadcasting data relating to the digital television broadcasting.

The examiner incorporates Eyer, US 6,483,547, which discloses transmission signal identification for analog television broadcasts. Eyer discloses a system which inserts a transmission signal identifier in an analog at the transmission side which is received/recovered by the receiver in order to access channel data provided by a digital source. Thus Eyer discloses positively identifies an analog television signal that is received, in order to determine by reference to a channel map to identify digital programming services which encompass the one or more analog services.



Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Moon and Shigihara which discloses receiving both analog and digital signals of the same channel, with Eyer in order to provide a system which properly identifies analog signals that are broadcast concurrently with counterpart digital signal carrying the same service, in order to eliminate the misidentification of an analog channel based on channel frequency (col 7, line 64 to col 8, line 3).

3c. Claims 3, 7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moon, US 6,501,510 in view of Shigihara et al., US 5,966,186 and Yuen et al., US 6,252,634.

In considering claims 3, 7 and 11,

The combination of Moon and Shigihara discloses an analog/digital broadcast signal processing unit that receives/displays the digital signal when both an analog and digital signal are simultaneously received, and also provides the user the ability to switch between the received analog or digital signals, where the digital signal is monitored to determine if it's error rate exceeds a reception quality limit.

However, neither Moon nor Shigihara disclose channel map information which is stored in a storage device at the time of shipment.

The storing of channel map information is conventional in the art.

The examiner incorporates Yuen which discloses that channel map information is stored in commercial remote controllers where the channel map information stored is applicable/relevant to the particular television service for a given geographic area.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Moon and Shigihara which discloses receiving both analog and digital broadcasts (of the same channel) with Yuen, in order to provide a tuning system which provides the user the ability to channel surf/select, stations which are broadcast in the geographic region/can be received, eliminating the user to surfing/selecting stations which cannot be received/displayed.

### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure, please refer to newly cited references on attached PTO-Form 892.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

**Any response to this action should be mailed to:**

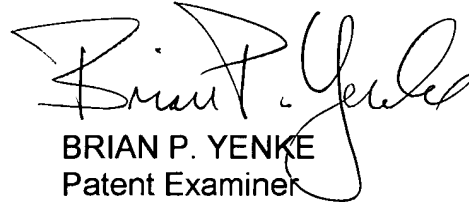
Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703)305-HELP.



BRIAN P. YENKE  
Patent Examiner  
Art Unit 2614



B.P.Y.

22 January 2004